New Insights into the Fundamental Principle of Semiconductor Photocatalysis

Baoshun Liu,[a*] Hao Wu,[a] Ivan P. Parkin,[b]

[a]State Key Laboratory of Silicate Materials for Architectures, Wuhan University of Technology, Wuhan city, Hubei Province 430070, People's Republic of China

[b]Department of Chemistry, Materials Chemistry Centre, University College London, 20 Gordon Street, London WC1H 0AJ, U.K.

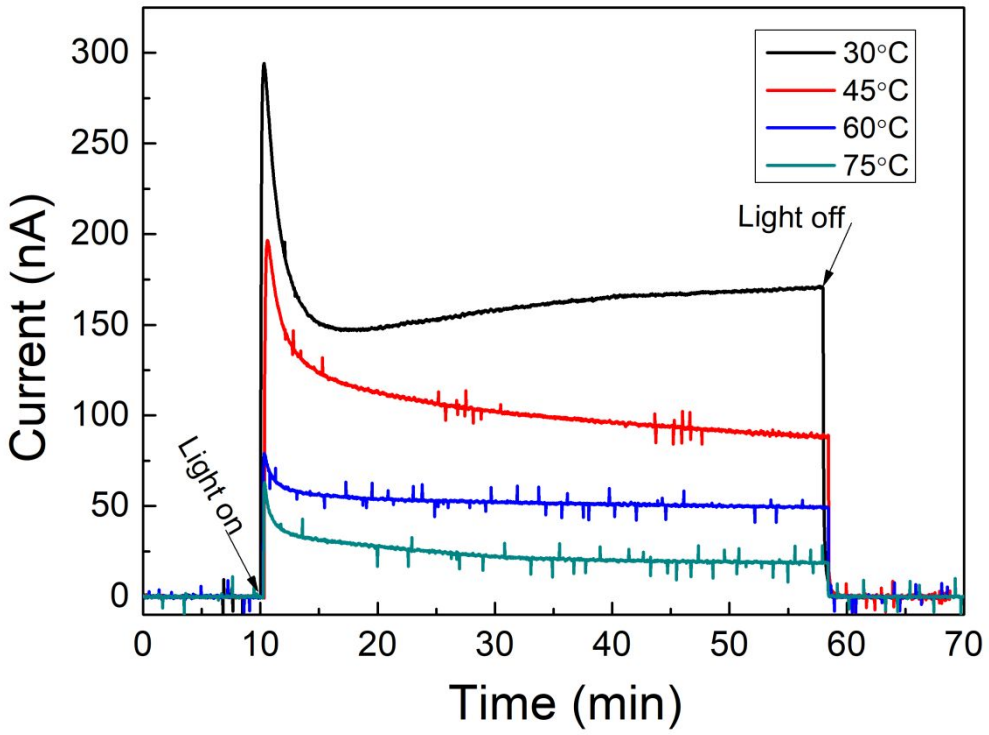

Figure S1. On-line photoconductances of TiO_2 coating in the course of acetone photocatalytic oxidations at different temperatures

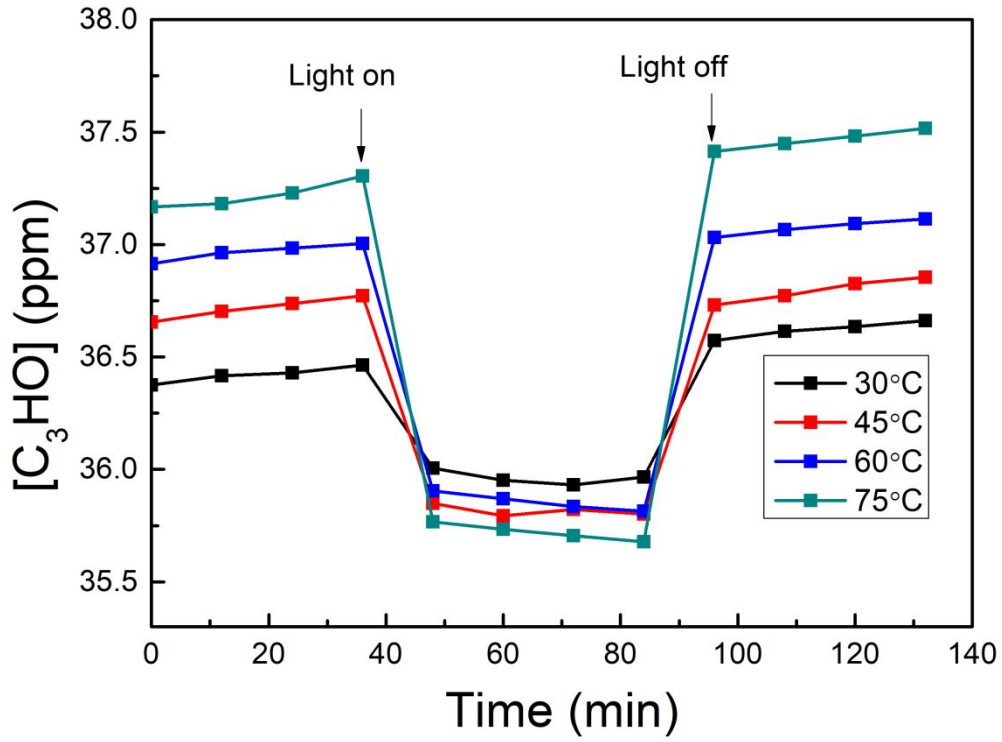

Figure S2. Change of acetone concentration in the course of acetone photocatalytic oxidations at different temperatures

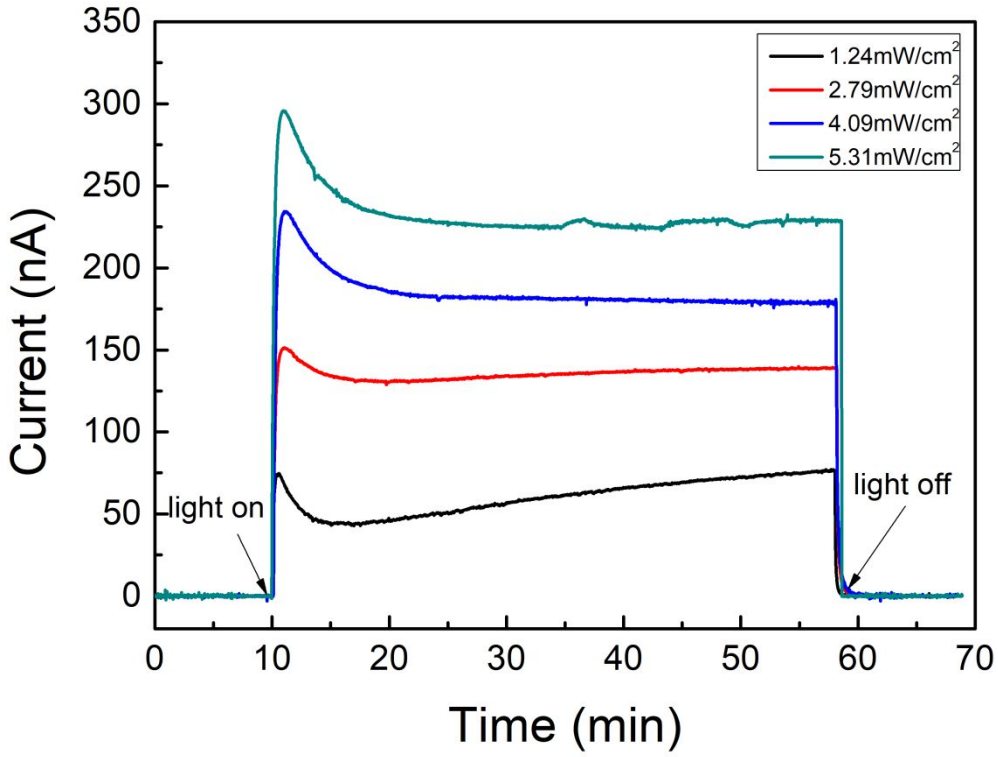

Figure S3. On-line photoconductances of TiO_2 coating in the course of acetone photocatalytic oxidations under illumination of 365 nm monochromic light with different light intensities

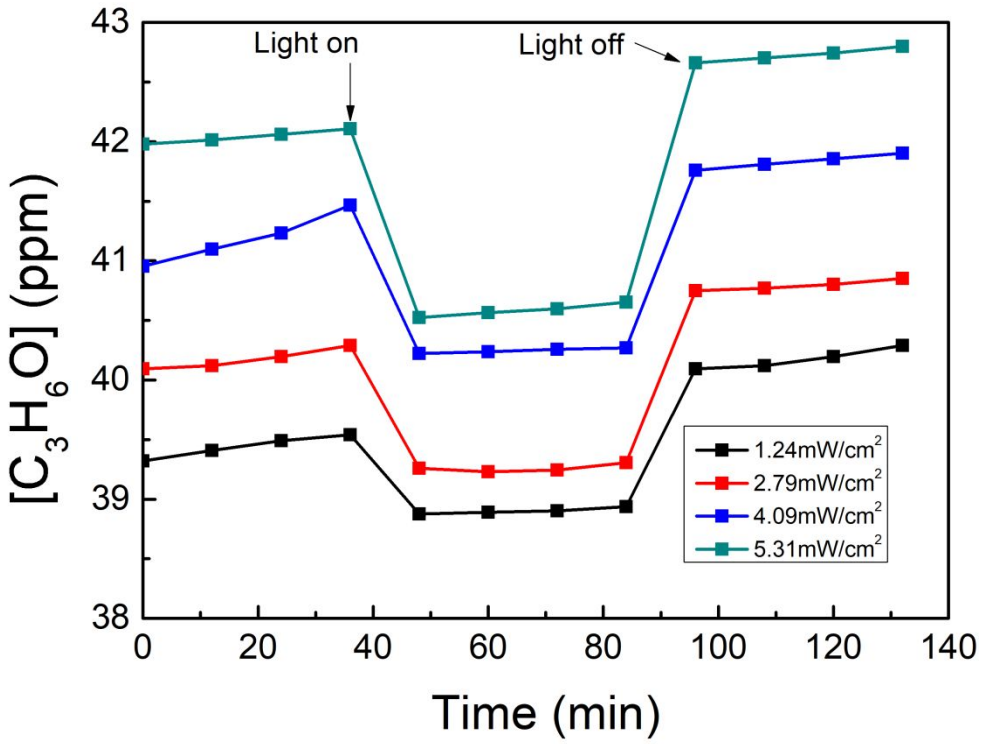

Figure S4. Change of acetone concentration in the course of acetone photocatalytic oxidations under illumination of 365 nm monochromic light with different light intensities

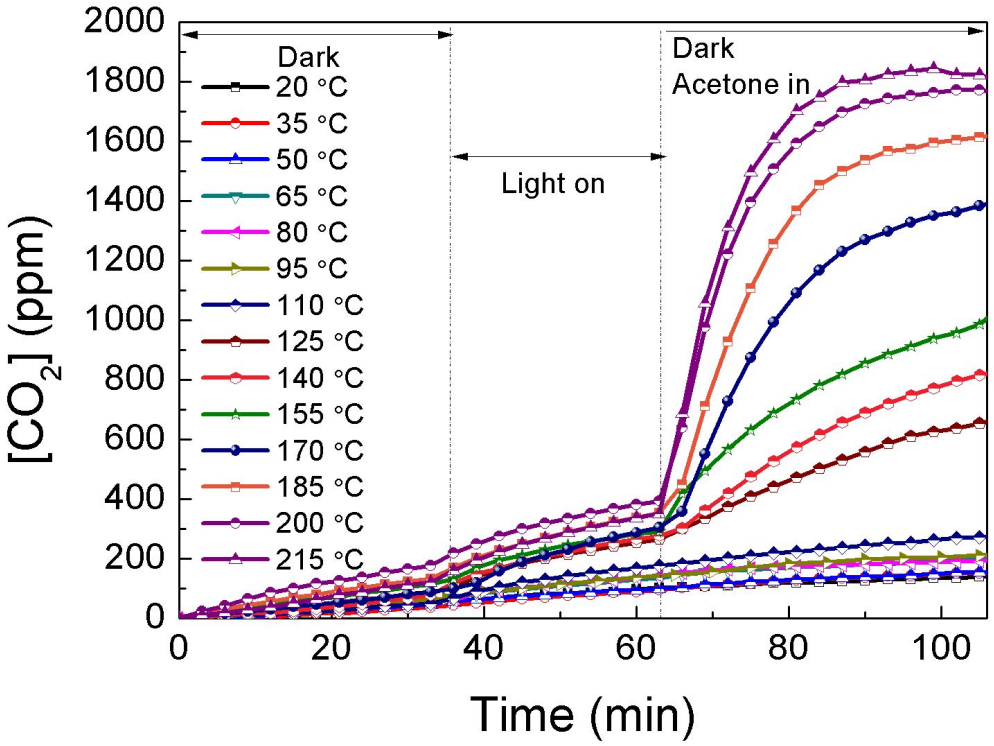

Figure S5. CO_2 evolutions during the dark catalytic oxidations of acetone

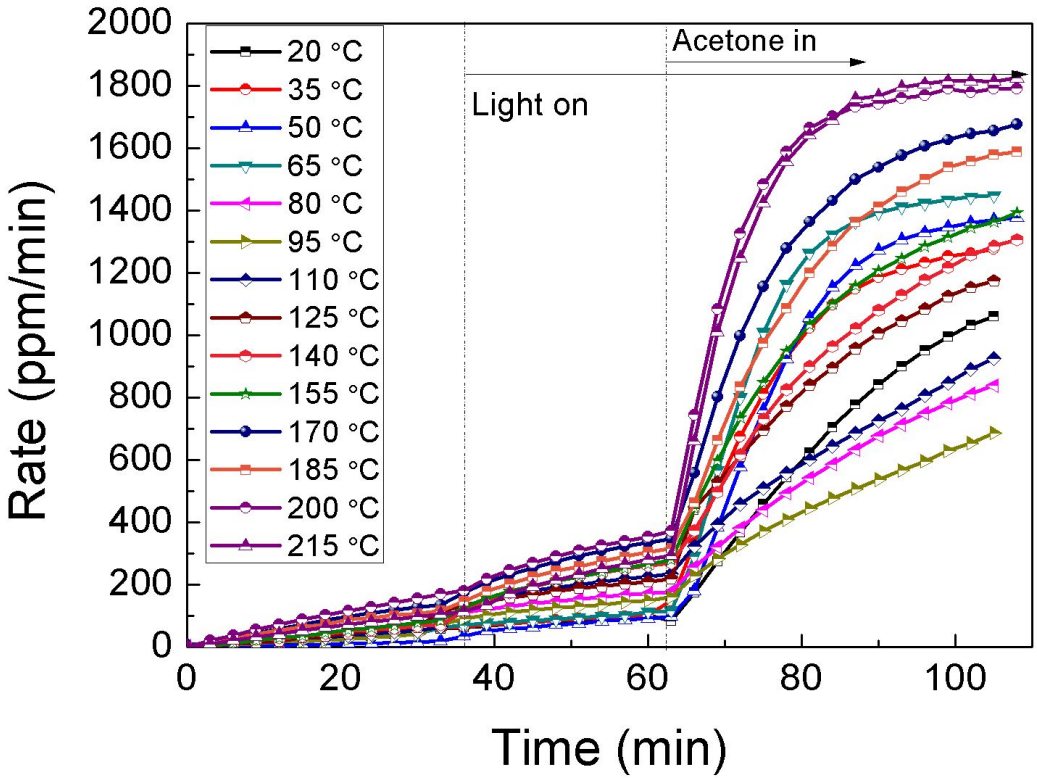

Figure S6. CO_2 evolutions during the catalytic oxidations of acetone under simultaneous illumination of 365 nm monochromic light illumination

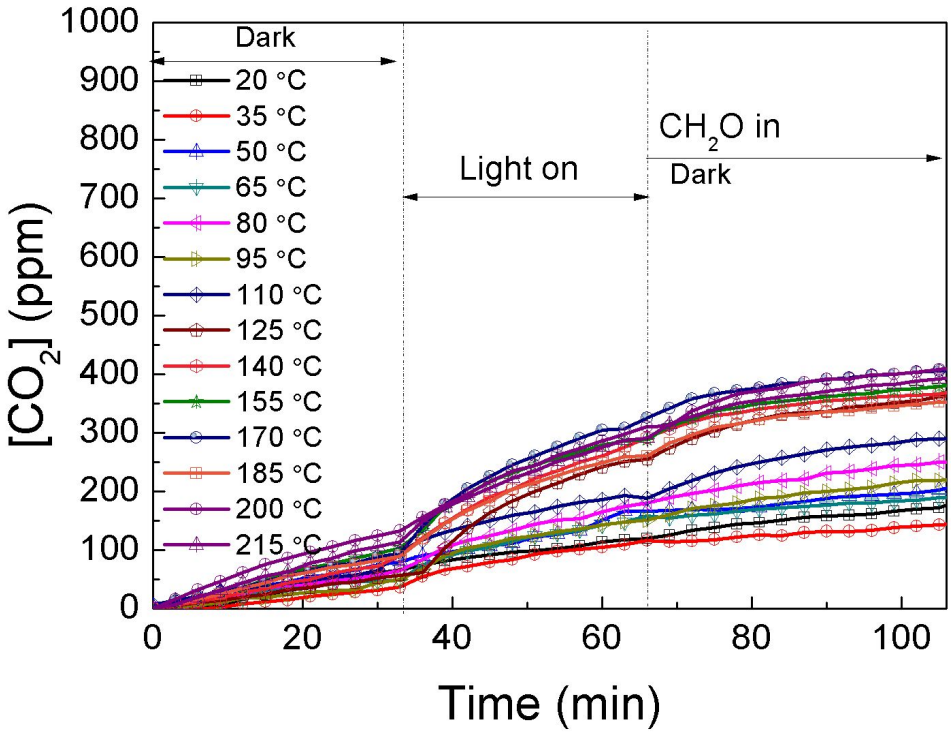

Figure. S7. CO_2 evolutions during the dark catalytic oxidations of formaldehyde

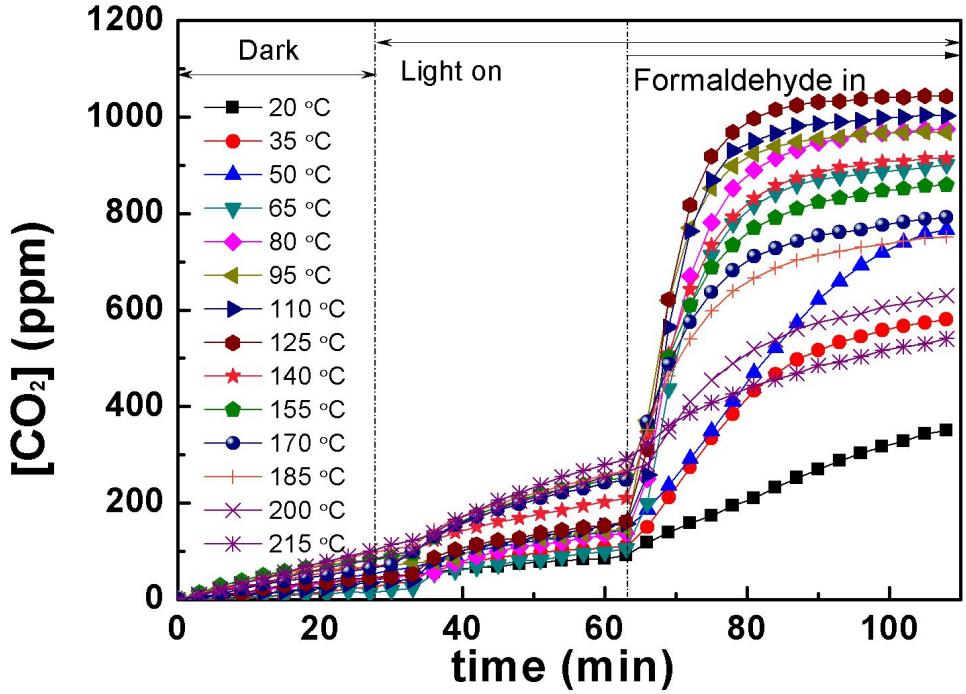

Figure S8. CO_2 evolutions during the catalytic oxidations of formaldehyde under simultaneous 365 nm monochromic light illumination